



#6  
Dewar  
11-1301

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION OF: Raghavendra U. Udupa et al.      DATE: August 28, 2001

SERIAL NO.: 09/872,423      EXAMINER:

FILED: May 31, 2001      GROUP ART: 2621

FOR: FINGERPRINT VERIFICATION

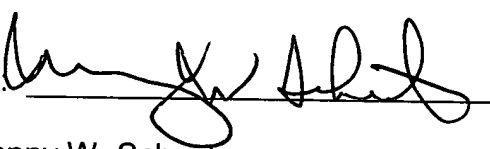
**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In order to assist in the examination of this application, and in accordance and compliance with 37 CFR 1.56, 1.97 and 1.98, copies of the documents listed on the attached form PTO-1449 are forwarded herewith.

Respectfully submitted,

By:   
Manny W. Schechter  
Reg. No. 31,722

IBM Corporation  
Intellectual Property Law  
P.O. Box 218  
Yorktown Heights, New York 10598  
Tel: (914) 945-3252  
Fax: (914) 945-3281

IBM DOCKET NO.: JP920010007US1

**LIST OF PATENTS AND PUBLICATIONS  
FOR APPLICANT'S INFORMATION  
DISCLOSURE STATEMENT**

**APPLICANT:**  
Raghavendra U. Udupa, et al.

**CONFIRMATION NO.:** 1406

**FILING DATE:**  
May 31, 2001

**GROUP:**  
2621

**REFERENCE DESIGNATION**

**U.S. PATENT DOCUMENTS**

EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPRO.)
	AA	4,581,760	Apr 8, 1986	Schiller et al.			
	AB	5,040,223	Aug 13, 1991	Kamiya et al.			
	AC	5,261,008	Nov 9, 1993	Yamamoto			
	AD	5,613,014	Mar 18, 1997	Eshera et al.			
	AE	5,631,971	May 20, 1997	Sparrow			
	AF	5,631,972	May 20, 1997	Ferris et al.			
	AG	5,761,330	Jun 2, 1998	Stoianov et al.			
	AH	5,982,913	Nov 9, 1999	Brumbley et al.			
	AI	6,041,133	Mar 21, 2000	Califano et al.			
	AJ	6,075,876	Jun 13, 2000	Draganoff			

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AK							
	AL							

**OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)**

	AM	A. Jain, L. Hong, R. Bolle, "On-Line Fingerprint Verification," IEEE Transactions on Pattern Analysis and Machine Intelligence, 19(4), April, 1997, pp. 302-314.
	AN	D.M. Weber, "A Cost Effective Fingerprint Verification Algorithm for Commercial Applications," Communications and Signal Processing, 1992. COMSIG 92. Proceedings of the 1992 South African Symposium on 1992, pp. 99-104.
	AO	C.A. Gunawardena, V.K. Sagar, "Fingerprint Verification Using Coincident Sequencing and Thinning," Industrial Electronics, Control and Instrumentation, 1991. Proceedings, IECON 92. 1991 International Conference on; 1991, pp. 1917-1922.
	AP	C.A. Gunawardena, V.K. Sagar, "Coincident Sequencing for Fingerprint Verification," Circuits and Systems, 1990. Proceedings of the 33rd Midwest Symposium on; 1991, pp. 845-848.
	AQ	L. Hong, A. Jain, "Integrating Faces and Fingerprints for Personal Identification," IEEE Transactions on Pattern Analysis and Machine Intelligence, 20(12), Dec. 1998, pp. 1295-1307.
	AR	A.K. Jain, L. Hong, S. Pankanti, R. Bolle, "An Identity-Authentication System Using Fingerprints," Proceedings of the IEEE, 85(9), Sept. 1997, pp. 1365-1388.

**EXAMINER**

**DATE CONSIDERED**

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**BEST AVAILABLE COPY**

**LIST OF PATENTS AND PUBLICATIONS  
FOR APPLICANT'S INFORMATION  
DISCLOSURE STATEMENT**

JP92001000/US1

**APPLICANT:**

Raghavendra U. Udupa, et al.

**CONFIRMATION NO.:** 1406

**FILING DATE:**

May 31, 2001

**GROUP:**

2621

**REFERENCE DESIGNATION**

**U.S. PATENT DOCUMENTS**

EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPRO.)
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AK							
	AL							

**OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)**

AS	F. Kuo-Chin, L. Cheng-Wen, W. Tuan-Ka, "A Fuzzy Bipartite Weighted Graph Matching Approach to Fingerprint Verification," Systems, Man, and Cybernetics, 1998. 1998 IEEE International Conference on; 1998, pp. 4363-4368.
AT	A. Jain, W. Lin, "On-Line Fingerprint Verification," Pattern Recognition, 1996, Proceedings of the 13th International Conference on; 1996, pp. 596-600.
AU	H. Yahagi, S. Igaki, F. Yamagishi, "Moving-Window Algorithm For Fast Fingerprint Verification," IEEE Proceedings - 1990 Southeastcom, pp. 343-348.
AV	F. Preston, "Automatic Fingerprint Matching," Security Technology 1989 International Carnahan Conference on; pp. 199-202.
AW	A. Wahab, S. H. Chin, E.C. Tan, "Novel approach to automated fingerprint recognition," IEE Proc-Vis. Image Signal Process., 145(3), June 1998, pp. 160-166.
AX	R.S. Germain, A. Califano, S. Colville, "Fingerprint Matching Using Transformation Parameter Clustering," IEEE Computational Science and Engineering, 4(4), Oct-Dec 1997, pp. 42-49.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**BEST AVAILABLE COPY**

**LIST OF PATENTS AND PUBLICATIONS  
FOR APPLICANT'S INFORMATION  
DISCLOSURE STATEMENT**

**APPLICANT:**  
Raghavendra U. Udupa, et al.

**CONFIRMATION NO.:** 1406

**FILING DATE:**  
May 31, 2001

**GROUP:**  
2621

**REFERENCE DESIGNATION**

**U.S. PATENT DOCUMENTS**

EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPRO.)
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AK							
	AL							

**OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)**

AY	Z. Chen, C.H. Kuo, "A Topology-Based Matching Algorithm for Fingerprint Authentication," Security Technology, 1991. 21th Annual 1991 IEEE Proceedings, International Carnahan Conference on; pp. 84-87.
AZ	A.K. Jain, S. Prabhakar, L. Hong, S. Pankanti, "Filterbank-Based Fingerprint Matching," IEEE Transactions on Image Processing, 9(5), May 2000, pp. 846-859.
BA	
BB	
BC	
BD	

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**BEST AVAILABLE COPY**